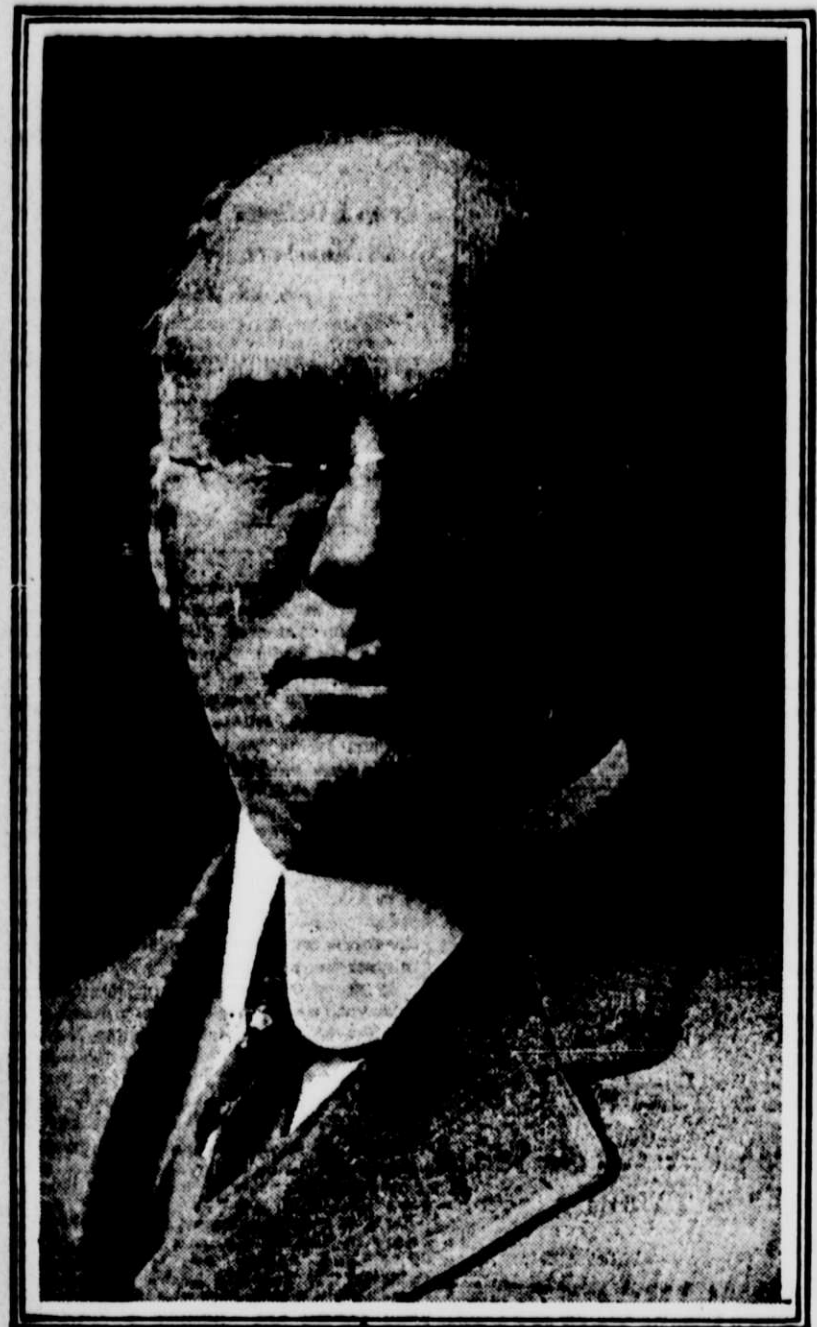


TRAIN BOYS AND GIRLS TO EARN A LIVING

Advocates of Vocational Guidance Are Trying to Have New Education Adopted in Public Schools--Two Different Theories of Best Way of Fitting Children



Dr. James E. Lough, professor of psychology of New York University

THAT letter sent to THE SUN not long ago by a lad who had studied many things in the public schools but had not learned how to earn a living described a situation which many boys discover after being graduated. It is to eliminate this situation that advocates of vocational training are trying to have it adopted as part of the system of the public schools. Dr. Leonard P. Ayres, director of the Division of Education of the Russell Sage Foundation, puts the case like this:

"Could you pass a seventh grade arithmetic examination? Would your doctor, your minister, your lawyer, get as high marks as their own 13-year-old boys?" Dr. Ayres very plainly says that these fathers would not, and he reaches this conclusion after making many experiments. "In too many schools the lessons taught have little bearing upon the problems of everyday life. We spend hours in teaching children rules they will never apply, terms they will never use and words they will never spell.

"The schools of this country are part of a great business—a business carried on in every city and every town—the business of turning children into useful citizens. In every branch of industry within the past few years there has come a wave of inquiry, an analysis of processes, a measurement of results. We call it 'scientific management,' and in common with other business men educators are applying these principles to their work. The children who enter our public schools are the raw material; those who complete the course and graduate are the finished product. Educators are beginning to demand how much of this raw material is wasted in the process.

"What proportion of the children complete the common school course? Six years ago no one in the country could answer that question. Now studies are being made, tests applied, and today we know that in the country a whole not one-half of the children who enter the public schools remain to graduate. Conditions in the higher schools are even more shocking.

"What should we say of a four act play in the theatre, where 1,000 people were present at the beginning of the first act; 500 got up and left at the beginning of the second act; 250 of these refused to sit through the third, and only 125 remained to see the final descent of the curtain? Yet these figures express conditions in many of our larger cities with respect to the falling out of pupils in the four years of our high school courses.

"Every one has heard the story of how Taylor, with his perpetual 'why' turned the trade of bricklaying upside down. Bricklaying, practised by millions of intelligent artisans, had remained almost unaltered since the days of primitive man. Finally, Taylor, with his scientific management, stepped in and asked: 'Why lower a hundred pounds of human flesh to pick up each two pound brick? Why toss the brick four times to find its best face? Why tap it three times to get its proper level? Why stand in a position that requires half a dozen movements when one will suffice?'

"Then science answered: 'Build a platform for the bricks adjusted to the height of the worker; lay the bricks on the platform with the best face out; mix the mortar so that one tap will suffice, and take such a position that five movements accomplish the same results that formerly required eighteen.' To-day, under the teaching of scientific management, each workman lays each hour as many bricks as he formerly laid in three hours.

"It took weeks of study to work that change. Yet bricklaying is a simple occupation. Infinitely harder, infinitely more complex, than any industrial problem is the problem of scientific management in education.

"Instead of bricks and mortar we have human beings as our raw material; books, words and actions as our tools. It is a task of staggering difficulty. Yet educators realize that only by applying the scientific method to our education can we hope to fit children for the life of the future.

"There are jobs fitted to the ability of almost every person. There are persons able to handle almost any job. But there is no greater weakness in modern society than the lack of some plan for bringing the right man and the right job together.

"You take the first job you can get, and the job takes you if you get there first. Later you leave because you don't like it or because you can't do it, and the job takes the next man who comes along. You are in the eternal shuffle of men and jobs without either side getting a fair deal. How are you going to find the right job? You can find out whether you are fitted for your job by psychological tests."

Tests of this sort have been made in examining applicants for the jobs of motormen on trolley lines, railroad employees of different grades, examiners of steel balls for ball bearings, a work requiring the greatest nicety; operators of telephone switchboards, and students in typewriting and stenography. In these experiments the aim has been to eliminate the possibly unfit at an early stage, the main purpose being to find persons fit for particular occupations.

At the outside, these efforts have only taken up twenty-one lines of endeavor out of something like 10,000 gainful occupations as listed in the United States census. Beneficial results have been secured in this fashion, but Dr. Ayres does not believe this to be the right way to attack the question; in other words, he thinks vocational guidance up to date has started at the wrong end of the problem. As he expresses it:

"It is not a question of fitting the square peg into the round hole, and the round peg into the square hole, for people and places are both plastic and can sometimes be modified to suit each other with mutual advantage. It would seem then that the immediate need is that for selecting a person for a place rather than a place for a person."

The division of education of the Russell Sage Foundation is a sort of clearing house for undigested data which, when properly studied, reveals many significant facts. From this information Dr. Ayres finds that although there are more than 9,000 different ways in which Americans gain their livelihoods, occupations that can be truly termed 'constant' number only twenty-one. In every city throughout the United States for each 1,000 people you will find on an average three plumbers,

three barbers, three tailors, four printers, four maçons, four blacksmiths, five engineers, five laundresses, six teachers, seven painters, eight bookkeepers, eight machinists, eight dressmakers, eleven railroadmen, eleven teamsters, twelve carpenters, fifteen salesmen, fifteen storekeepers, sixteen clerks, twenty-eight servants and forty-one laborers.

This gives a total of 217 persons definitely assured of employment. Assuming children and the aged to number 100, then industrial work of some sort must be found for the 383 remaining. Even assuming that the odd 83 are mothers or home keepers, there are still 300 to be employed at some regular work if the community is to thrive as a whole.

These figures probably underestimate rather than overstate the seriousness of the situation. Vocational guidance is needed in order to steer all of these theoretically unassigned into lines of endeavor where the best in them can be called into action. Dr. Ayres thinks this can best be done by first measuring the capabilities of the individual and then finding among the nearly 10,000 occupations the particular one calling for the qualities manifested.

Dr. James E. Lough, professor of psychology at New York University, is equally earnest in his belief that something radical must be done in the direction of vocational guidance, but he is diametrically opposed to Dr. Ayres as to the manner in which the problem should be approached. That is to say, Dr. Lough thinks the requirements of each calling should be the primary object of study, for after all that worker is most successful who comes nearest to satisfying the demands of his employer.

Unfortunately as the conditions are today not enough is known about the basic requirements. A youth enters a business house, a bank or some industrial enterprise, only to be dropped after a while with no further explanation than that he does not answer in efficiency. What is this elusive business efficiency? Can a young employee enter upon his duties intelligently, no matter how well intentioned himself, until something definite is learned about the standard by which he is to be judged? According to Dr. Lough no real headway can be made unless the duties for each vocation are understood in the first place and then candidates are picked for these places after they have shown their especial fitness. This

indeed means finding the round peg for the round hole, the hole having previously been classified.

Dr. Lough looks upon the 10,000 gainful occupations mentioned by Dr. Ayres as little more than a list of names which bewilders rather than helps. In fact Dr. Lough says the list misrepresents the facts because it conveys the idea that vocational guidance must take into consideration all of these from the very beginning before it can lead the student into his direction of best endeavor.

"Let me make this clear to you," says Dr. Lough. "The carpenter, the cabinet maker and the model maker are all wood workers, and each one of them rests his skill upon a training which is substantially identical. Each has certain tools to use in common, each has to know the characteristics of the different woods upon which he works and each must be able to do with approximate skill many allied things. Therefore, instead of looking at these three occupations as essentially distinct, we must realize that they really start from a single point, and, therefore, they can be broadly grouped under the one comprehensive classification of 'wood-workers.'

"What we should really have to do in the foregoing cases is to find out what are the first qualifications essential in the woodworker. Then pick out the boy that shows a leaning that way. If practice show that he have more than ordinary deftness he takes up carpentry in its nicer phases and in this sub-group he is closely allied to the first stages of cabinet making or furniture making as distinctive occupations. He may a little later choose one or the other of these, perhaps err in his selection, but the two are so nearly related that there is really no loss because he can turn easily to the other work for which nature has especially qualified him.

"Take the boy that shows an especial fondness for Euclid, and who has a certain gift in using words and in making his verbal pictures. He has the teacher instinct, but not necessarily that of the educator in the school sense of the word. He may make a splendid writer, covering any field of literature, and in literature I put the finished contributor in the press in a high place. He may be a lecturer or a preacher, but withal a teacher, and his ultimate fitness has evolved from a common groundwork which offhand may seem remote to the casual critic.

"Instead of 10,000 gainful occupations, this method of grouping reduces



Dr. Leonard P. Ayres, director of the Division of Education of the Russell Sage Foundation.

that list enormously and brings down the primary total to an indefinitely smaller number, and thus facilitates the placing of the youth's steps in the right path. Dr. Ayres would analyze the requirements of an educational climax; I believe in studying first the foundation.

"Vocational guidance as it is under-

stood to-day, and as Dr. Ayres himself has told you, means starting with the boy or the girl, as the case may be, and fitting each for the problems of every day life. Don't teach them rules that may never be applied, nor terms they may never use, but lead them from the beginning so that each day's lesson may have its practical value in the years to come. If you are going to begin this early to steer the child must you not then know what are the basic requirements of the calling selected? The youthful powers must be adapted to what might properly be called the youthful needs of the craft.

"How soon do I think we can assert vocationally the youthful student? Approximately between 10 and 12 years; individuals will naturally differ in the sharpness with which their interests are defined and accordingly to some extent the age at which they will do this.

"In our manual training schools I think this has not always been fully realized, and a good many mistakes have been made that might have been avoided had it not been the common practice to specialize too soon. In fact I think a great deal of money has been wasted on this account by a needless duplication of facilities.

"The boy carpenter and the boy machinist have both of them to know how to use certain tools in common, and to a kindred degree they can get the necessary understanding that each needs of machinery up to a point by studying the same mechanisms. And yet in the past these boys have been totally separated during their training and the tools and mechanical facilities used in their instruction have been duplicated unnecessarily. This is an error in vocational guidance which starts out with too much classification where broad groupings would show closeness of primary requirements.

"We are all striving toward the ultimate goal of efficiency; that is, intelligent and well directed energy, and this is the way that to me at least seems the shortest cut to success. In this manner we can soonest group the elements of demand of every occupation and with this knowledge in our possession then we are better able to battle with the rest of the problems of vocational guidance understandingly."

Dr. Lough has done some very suggestive work in the matter of analyzing the fitness of students in typewriting and stenography and certain pupils in New York high schools. Habit formation constitutes the groundwork of his investigations.

Each person is given a sheet containing twenty letters of the alphabet, arranged without order, ten lines of these and no two lines the same. Above this is what Dr. Lough calls the key, which consists of these twenty letters arranged horizontally, each with its "equivalent letter" beneath. These are disposed quite at random, and must be memorized roughly by a superficial glance, and then begins the testing.

As each letter is called from the test sheet the person examined must place beneath it the proper equivalent fixed by the key, and the time required for each line is set down. There should be a shortening of the period as the examination progresses, and from the suite a diagram of efficiency in formation is plotted. This testing takes for about twenty days, and from a beginning record of an average of thirty seconds for the first line this is cut down to eleven or twelve by the end of the investigation. From the curve of habit, or curve of learning, Dr. Lough determines the capability of the individual.

While habit forming is a pretty good index of the student's ability in writing, still it is not quite so conclusive when it comes to learning stenography or taking up the study of a language or mathematics, where another phase of the mind is called into play. Up to a point the habit forming serves a purpose, but after that point mental processes of a higher grade must carry on the task.

Just the same, in a couple of weeks by this method, Dr. Lough can tell whether or not a person is fitted to take up typewriting and stenography. If not, this could be saved from further waste of time and guided into other fields of useful preparation. The whole aim is to effect economy in effort in the first place and then to direct further endeavor and the best in one toward attaining the hallmark of efficiency.

Swedish King May Lose Throne Owing to His Fight for Armaments

Special Correspondence to THE SUN.
STOCKHOLM, Feb. 18.—King Gustav of Sweden following in the footsteps of his father, the late King Oscar, whose unrelenting opposition to the demands of the Norwegian people almost a decade ago cost him the crown of Norway.

This is the question on the lips of students of political conditions here who can look beyond the immediate issues of the proposed increase in armaments.

Those who heard the King's speech to the delegation of peasants who went to the National Palace two weeks ago to pledge their faith in him and their support of the armament proposals, listened with amazement to the monarch's denunciation of the opponents of the scheme. It amounted in effect to a declaration that the Stauf Cabinet and the Liberal and Socialist parties, forming an overwhelming majority in the Riksdag, were lacking patriotism and could not be expected to take measures for the adequate defence of the nation.

"I will show you the road to our common end," said King Gustav. "There is only one way, and that is to support me ever henceforth."

King Astounds Ministers.

The break between the King and the Cabinet became an impassable gulf when the monarch's words were reported. That a constitutional monarch should thus enter directly into a political matter and become the active leader of the fight against a Ministry representing the expressed view of the people given at the elections of 1911 on the very issue now before the nation caused consternation. The Cabinet Ministers plainly told the King what they thought of his action. He defended it in these words in his address to the assembly of university professors and students:

"It is my constitutional right as Sweden's King frankly to declare my opinion on what is beneficial and necessary for my people. I fully confide in them and their willingness to make sacrifices for the country's needs. Rally around me for the welfare of the country. Go forward with me to the goal of a strong and free Sweden."

When the Ministers requested the King to notify the Cabinet before proceeding to make such statements in public, they received this reply:

"I cannot agree to this. I will not deprive myself of the right of speaking unreservedly to the Swedish people."

All attempts at a solution were abandoned by the Ministers, who resigned forthwith.

It is recalled that in May, 1905, when the Storting of Norway then a part of a dual monarchy under King Oscar, passed the Norwegian Government's proposals for a separate consular service for Norway and a separate foreign Minister, King Oscar vetoed the bill. The Norwegian Cabinet resigned, but the King refused to accept the resignation. The Cabinet tendered its resignation to the Storting. Crown Prince Gustav Adolf promptly took the view that as King Oscar was unable to form a government his right to sit on the throne of Norway had ceased to exist and the union of the two countries was dissolved.

Royal Family Divided.

It is the action of King Gustav in openly taking sides in a political issue just as his father did in the fight which caused Norway to secede, which causes people to ask if he is not embarking on a policy which may have an analogous result. Powers of the approaching abdication of King Gustav are persistent. Moreover, there are reports that the royal family is divided on the issue before the country. Crown Prince Gustav Adolf is said to be opposed to the policy of increased armaments advocated by his father.

The new Premier, Dr. Hammarskjöld, head of a conservative Ministry, announced in the Riksdag to-day that the question will be submitted to the nation in a general election without delay. If the Liberal and Socialist majority in the present majority in the Parliament—whether they number 165 against 65 Conservatives—is the general opinion that the result of the elections will be taken as a vote of lack of confidence in the King and that his abdication might then be looked for as a natural consequence or that it might even lead to the establishment of a republic.

Here is the speech made to King Gustav by the spokesman of the 30,000 peasants, who aroused by the King's cries that he was in danger, that the Rus-

sian bear was waiting for the propitious moment to dash into Sweden, marched into Stockholm to explain where they stood in the matter:

"We are King and King."

"When the fiery cross from the peasants of Upland went forth over all the land of Sweden this was done in order to call them in serious times to rally around their King, for it comes from time immemorial that the freedom and the independence of the fatherland. That the yeomen have been impressed by the seriousness of the question is evident from the fact that more than 30,000 of us have met here and to this figure can be added 40,000 more who have by name expressed their full agreement with us.

"I am selected to serve as our spokesman. We have discarded the party politics in order to express unanimously before our King our wishes and expectations that the defence of the country be so organized that the land which from time immemorial has been cultivated by our forefathers can be preserved for our descendants to be cultivated under the same freedom and independence as hitherto. No sacrifice was too great for our forefathers when the fatherland was concerned and we also wish that nobody be able to say in future times that we were lacking in this respect.

"Accept, your Majesty, our firm assurance that we are willing to sacrifice for the army as well as for the navy, all that is demanded by the professional knowledge and the seriousness of the time, so that all which can and should be done to make sacrifices for the defence, and just as in old times, King and peasants have relied on each other and saved the country when danger threatened, nothing in our time can break these bonds or shake this confidence.

"Patriotic women have to-day presented us with a standard bearing our motto and we herewith beg to give the same to our King as a memento of this occasion, and with this we say:

"God bless the King and the fatherland."

The King made the following reply: "Honorable men of Sweden's peasantry: 'I bring you from the heart my royal thanks that from all parts of Sweden you have come out from the struggle and pursuits of daily life to make to-day's appointment with me, at the castle of Stockholm, for the welfare of the fatherland. I also thank all the thousands that have in other ways given expression to the same patriotic nature which brought you here. The standard which I have received from your hands will also for me remain a beloved and valuable memento of this day and its significance.

"You have come to express your opinion about the maintenance of the country and its position among the nations. You are here and in order to make known, with me, to all that no demand is too high and no burden too heavy when it concerns the maintenance of our ancient freedom and the security of our future development. From times so distant that they are shrouded in the shadow of the myth the structure of this country has rested on the foundation of the firm and unshakable confidence between King and people. You know also that this intimate cohesion alone has been powerful with the help of God to make the Swedish nation glorious before all other nations and to give them force to fight and conquer in battles for right and truth. In times of distress the peasantry of Sweden has been the rock on which the King could safely rely. And I feel that I also have a place in your hearts. It has been as bad times the bond between King and people holds, and with God's help will never break.

The Duty of Sweden.

"Our time is serious. Now, as before, it is all important to care for the inheritance which we received from our fathers and which was built up by their work and blood. It is our duty to administer well that which has been entrusted to us and to improve it for our good and to no one's harm. Therein lies our common duty in the present time—for the future.

"It is the feeling of this which brought you here. It is the uneasiness for the security of the fatherland which in these winter days caused you to leave your quiet homes. It is the demand for a firm foundation for the future of the country which at this moment joins your glorious provincial banners under the royal Swedish flag which waves here above us all. You have before me expressed your real wish to see the most vital question of the country and the people definitely solved as quickly as possible, and you have declared yourselves ready and willing to assume the burdens and bring the sacrifices in connection therewith.

"Nothing can for a King be more valuable than to receive from the lips of the people themselves the testimony of their wish and eagerness to give him their loyal support in the discharge of his often heavy royal duty. No King who before carried the crown of Sweden has in the same measure as I enjoyed the benefit of standing at this place face to face with the rank and file of the peasantry of Sweden and heard its voice. The cogwheel of your undivided confidence in your King makes indeed my royal task

doubly responsible, but at the same time easier to accomplish, and I promise me to fall you. You may feel assured that I will never compromise with my conviction of what I consider right and useful with regard to the safeguarding of the independence of the fatherland.

Backed by Army Officers.

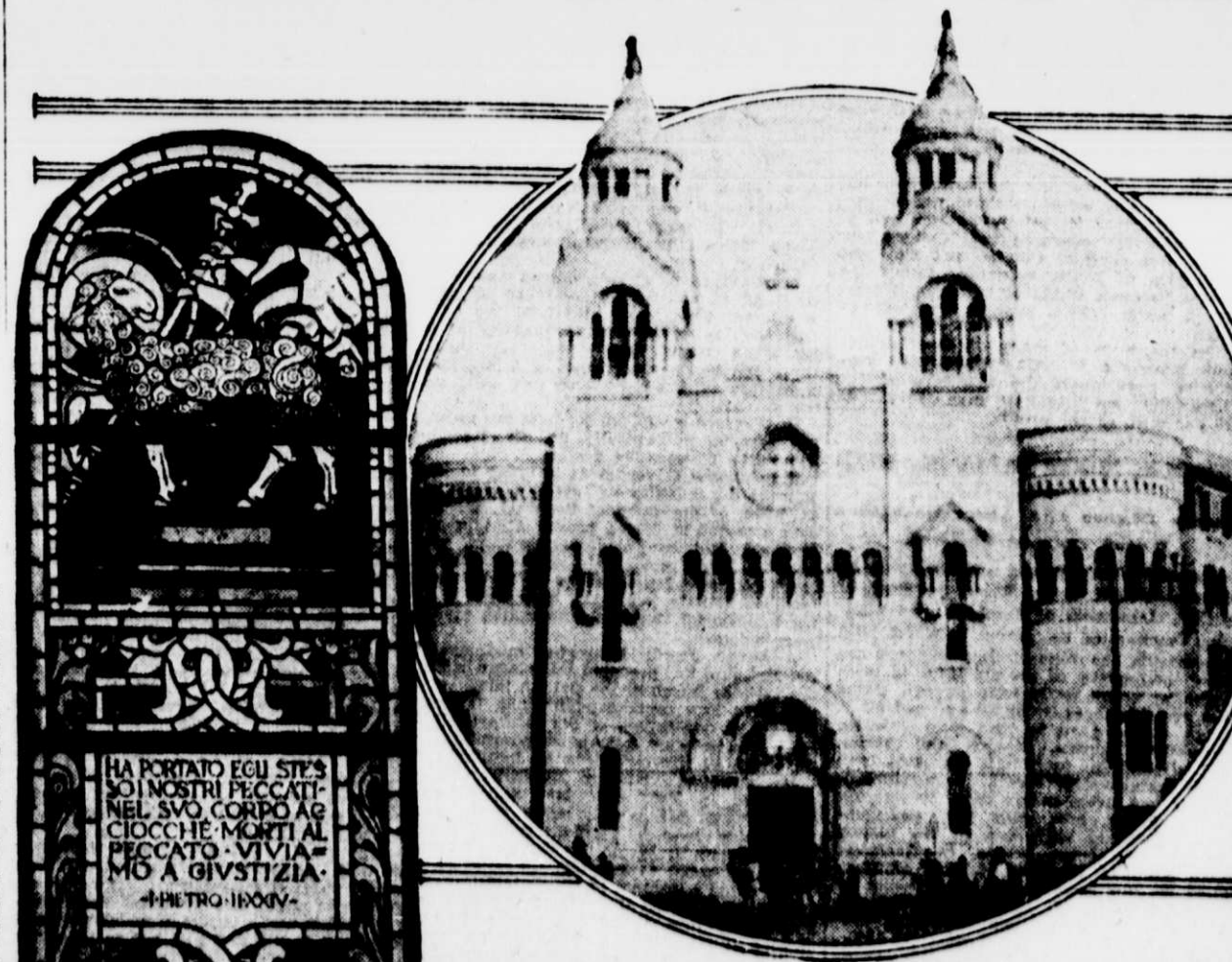
"There are not lacking those in our country who have the opinion that the question of the time of service for the infantry should not now be solved, but I do not at all share this view; on the contrary, I am of the same opinion as you have already before expressed, namely, that the defence question should be treated in its entirety and decided now without delay and coherently. The demands for preparation for service and readiness for battle of the field army which are put forward by the competent officers of my army as indispensable will not be given up by me. You all know that this means an extended time of service for the conscripts.

"For the solution of her great tasks my army must also be not only kept up but also considerably enlarged. May we jointly work for the defence of the country! Thus we will succeed in carrying this paramount question to a happy result.

"Pursuant to my duty as your King I will show you the road to reach our common end. Therefore, follow me, and support me ever henceforth! To the generations that have gone and to the generations that will come we must answer before God for our deeds. The Almighty, who until now has held his hand over the Kingdom of Sweden, may He even in the future protect our country and our people!

"God bless you all!
"Your beloved fatherland vivat!
"Sweden vivat!"

Italian Church Built With New York Woman's Funds



In the accompanying illustrations are shown the Waldensian Church in Rome, which was built with the \$200,000 donated by Mrs. John Stewart Kennedy of New York, and two of the stained glass windows for the church which were designed by the Italian painter, Ludovico Paschetti. The church was erected in the memory of Mrs. Kennedy's father, Cornelius Baker. The dedication took place on February 8. Mrs. Kennedy is now on her way to Italy and the Holy Land to visit missionary schools and churches to which she has contributed large sums of money. She is also well known for her charities in New York. She became interested about two years ago in the Waldensians, the oldest but the poorest Protestant sect in Italy.

Who His Own Self Bore Our Sins in His Body Upon the Tree; That We Being Dead to Sin Should Live to Justice.—1 Peter II, 24.

"I am the Good Shepherd: the Good Shepherd gives His life for His sheep."—John X, 11.